

(12) **UK Patent Application** (19) **GB** (11) **2 243 677 A** (13)
(43) Date of A publication 06.11.1991

(21) Application No 9002900.0

(22) Date of filing 09.02.1990

(71) Applicant
Corinna Mary Woods
"Boskies", Crouch House Road, Edenbridge, Kent,
TN8 5EL, United Kingdom

(72) Inventor
Corinna Mary Woods

(74) Agent and/or Address for Service
P Collins
13, Bower Lane, Eynsford, Kent, DA4 0HW,
United Kingdom

(51) INT CL⁵
F21L 15/08

(52) UK CL (Edition K)
F4R RMR R254 R321
U1S S1930

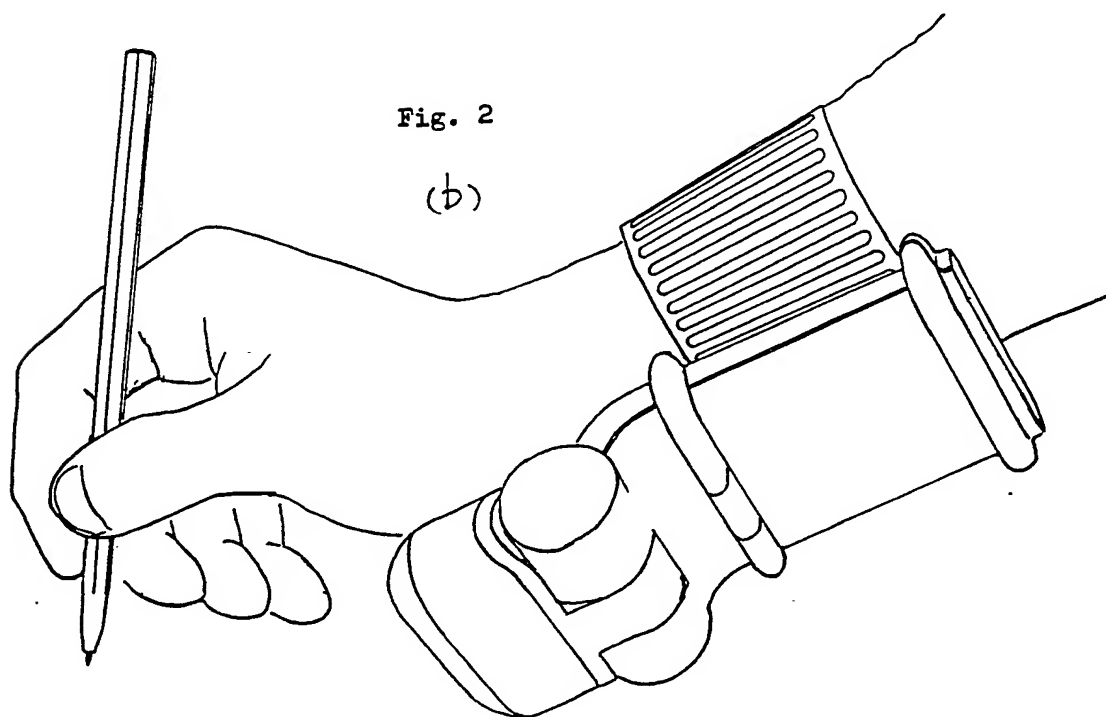
(56) Documents cited

GB 1447515 A	GB 1447514 A	GB 1010632 A
GB 0830397 A	GB 0536386 A	GB 0534805 A
GB 0461009 A	GB 0414438 A	GB 0409403 A
GB 0272758 A	US 3550824 A	

(58) Field of search
UK CL (Edition K) **F4R RMG RMR**
INT CL⁵ **F21L 15/06 15/08**

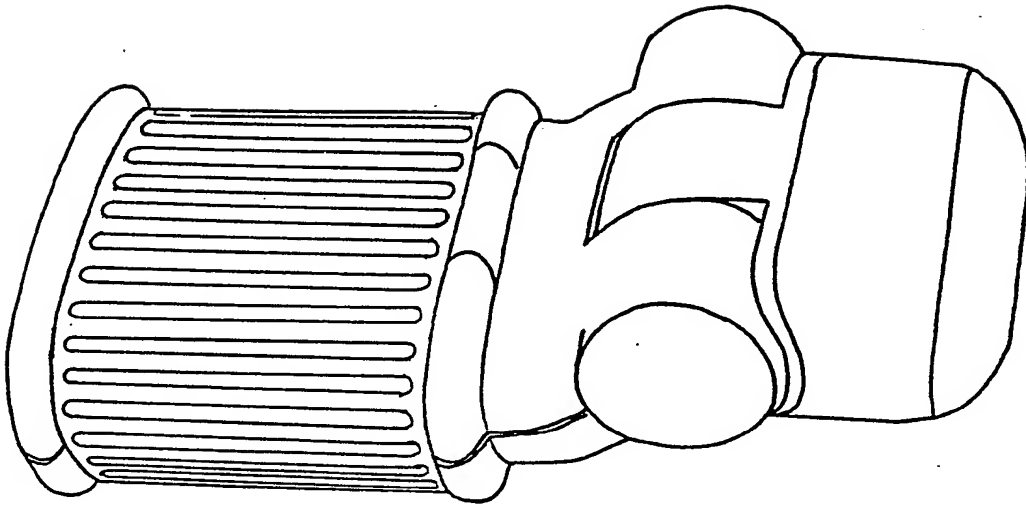
(54) **Modified torch**

(57) An electric torch is fitted with a strap joined to the casing at one end. The strap is fitted with a suitable adjustable fastener for means of attachment and securement to the torch and the wrist. The strap 11 may be stored round the torch casing being retained between the ribs covering the anchoring rod or similar device. The strap may also be used to attach the torch to the users wrist by unwinding it from the torch, passing the strap round the wrist, around the anchoring rod and pulling it back on itself, fastening in position by means of the fastener.

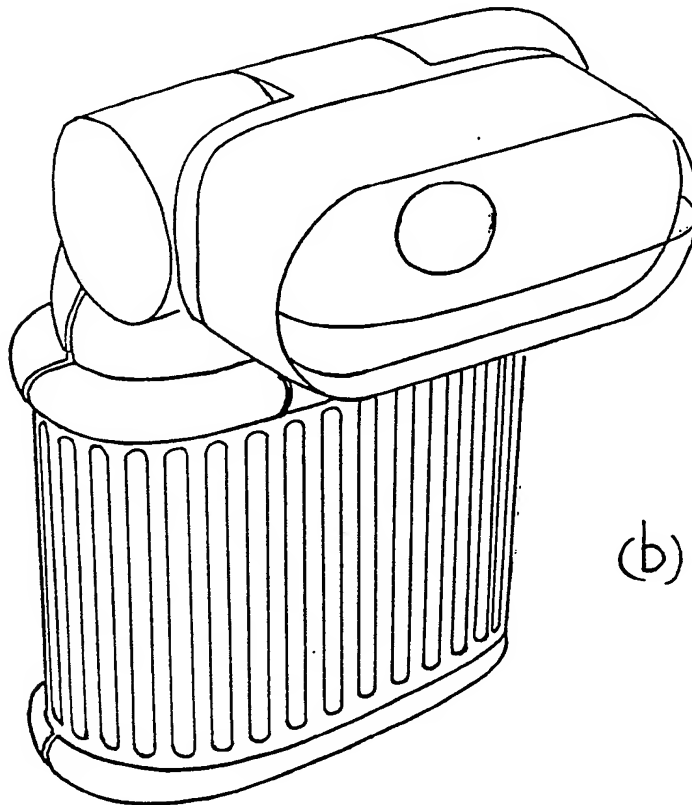


GB 2 243 677 A

Fig. 1



(a)



(b)

Fig. 2

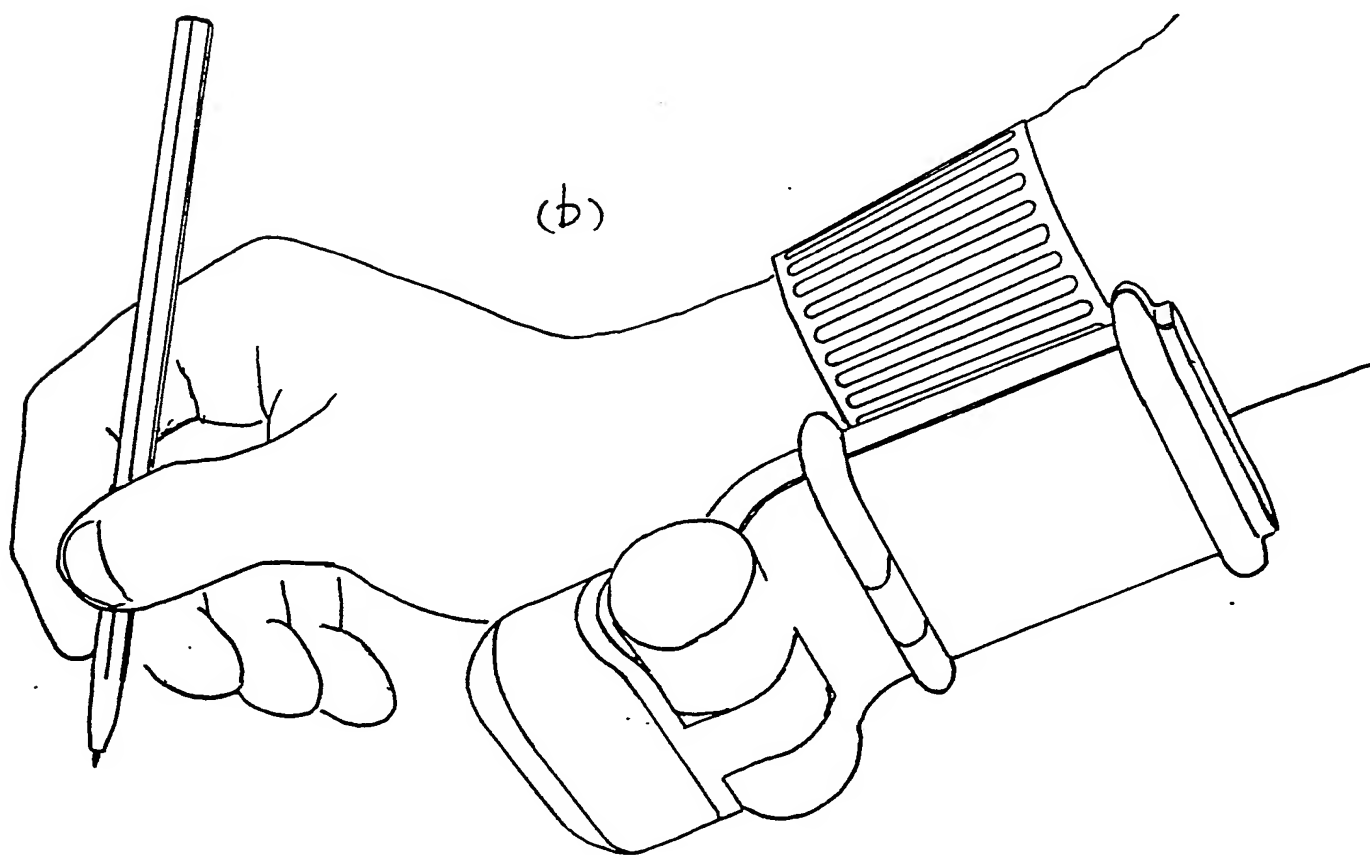
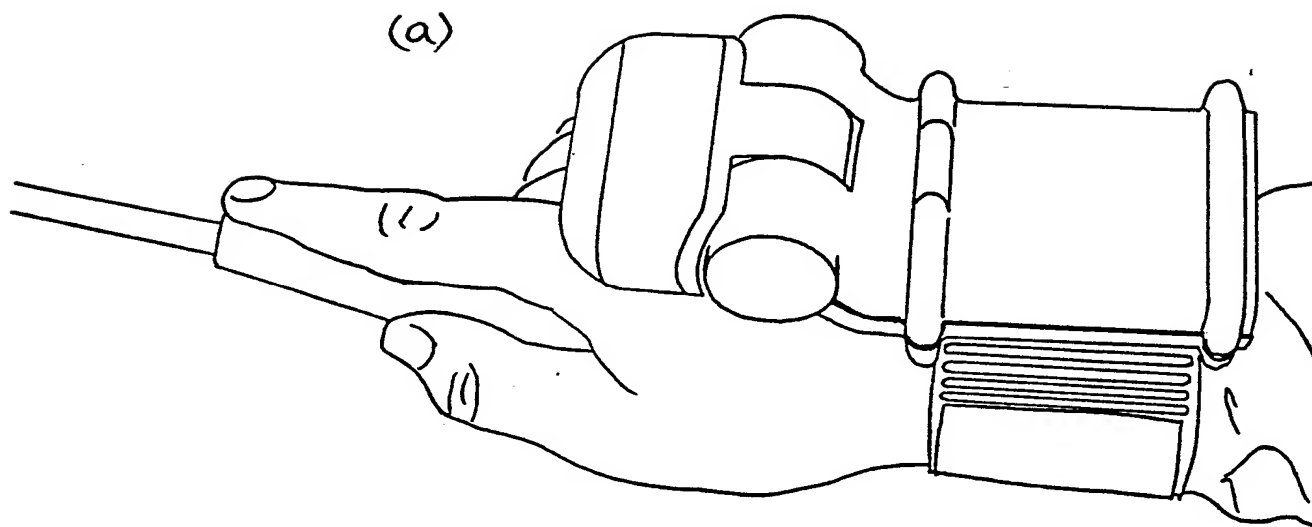


Fig. 3

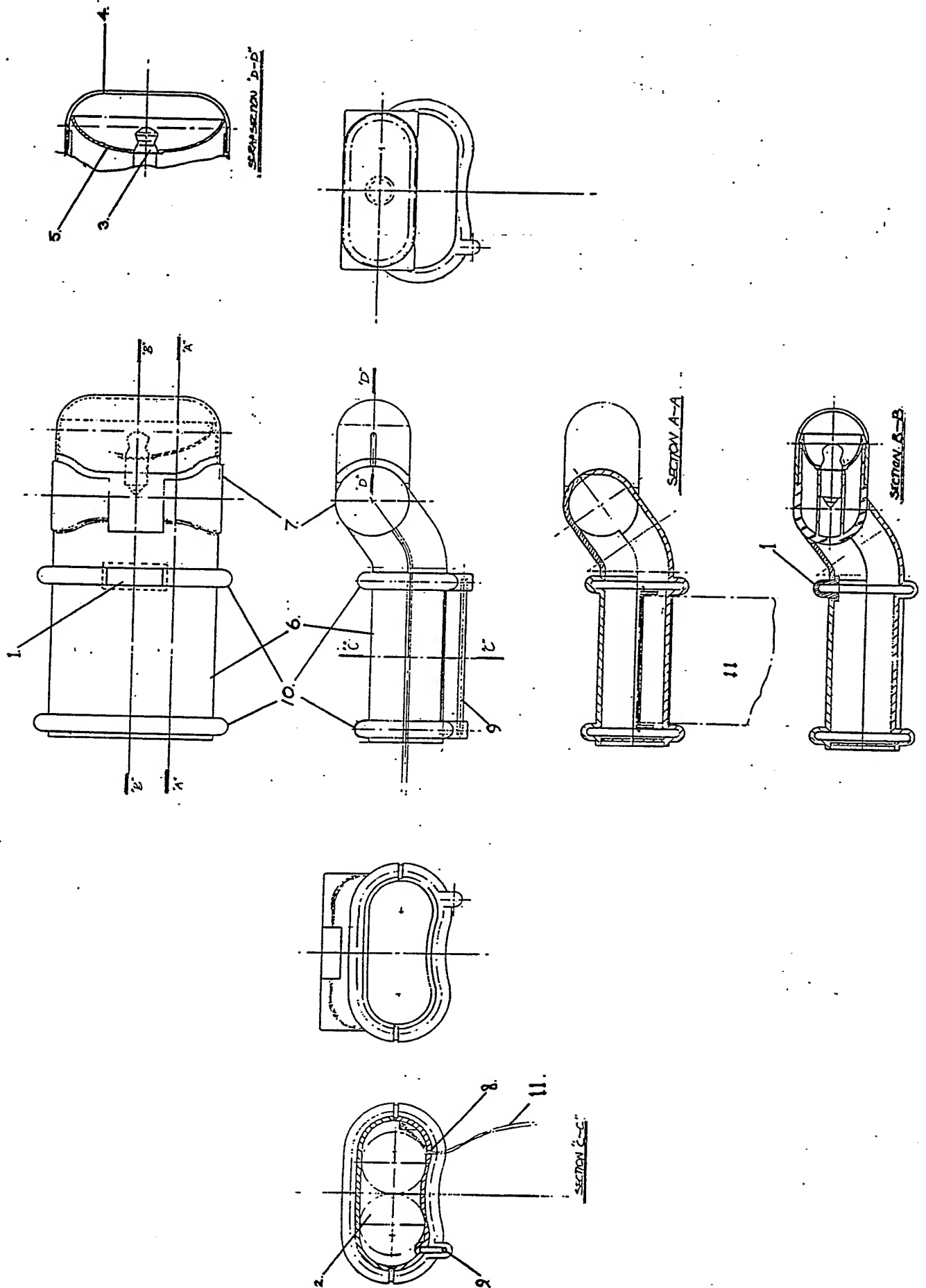


Fig. 4

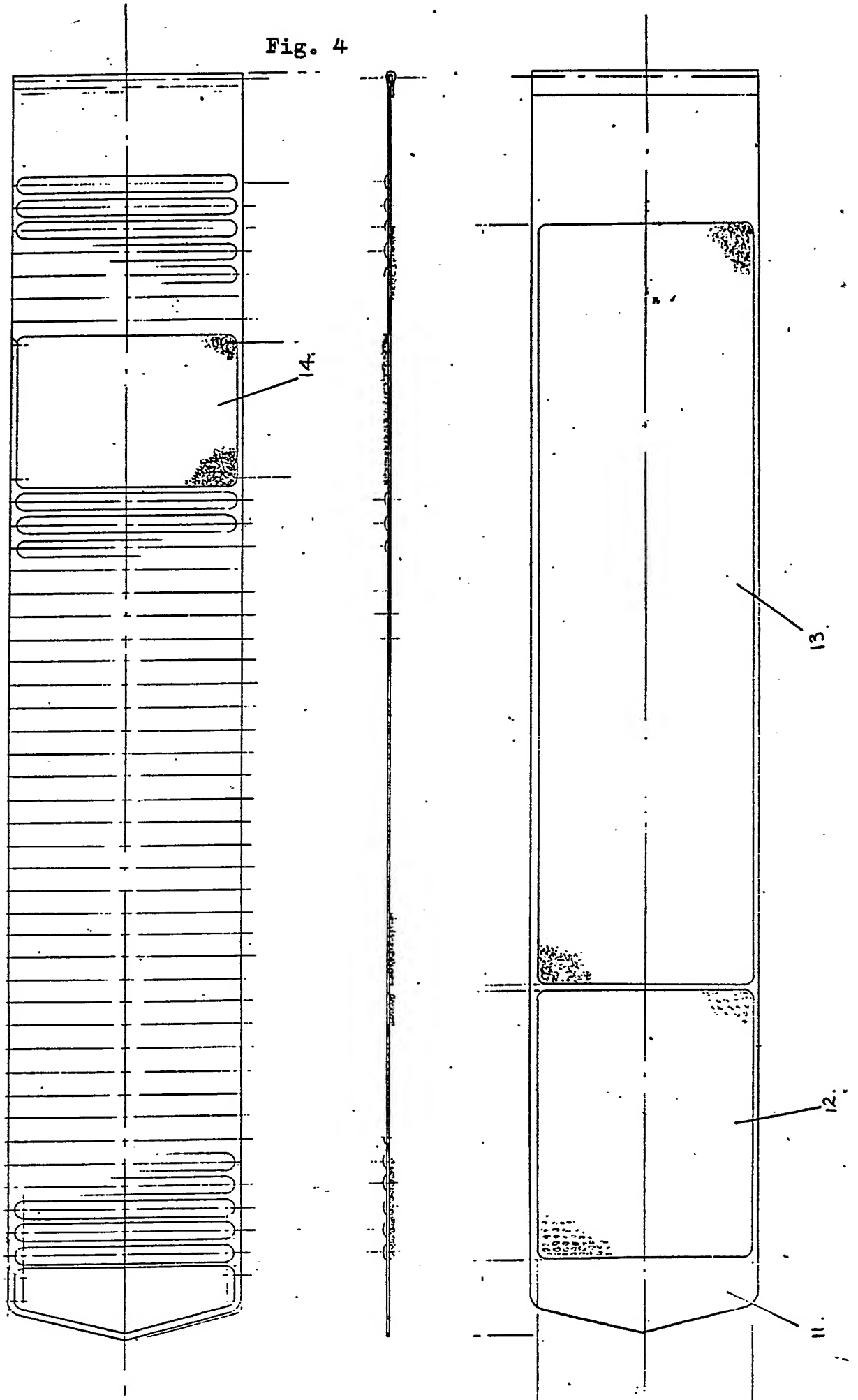
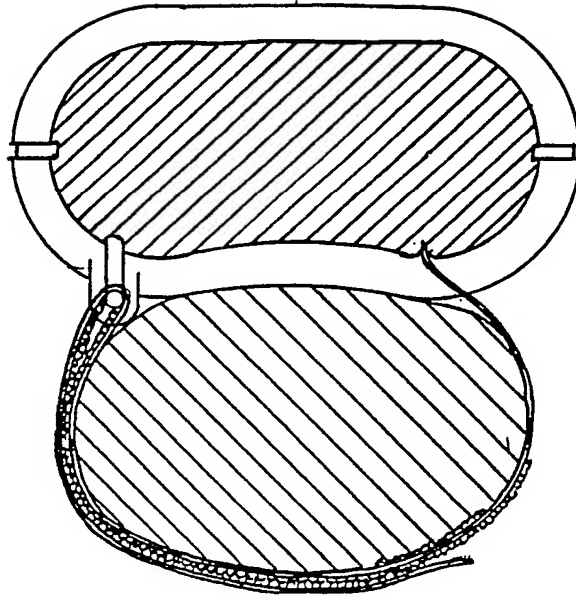
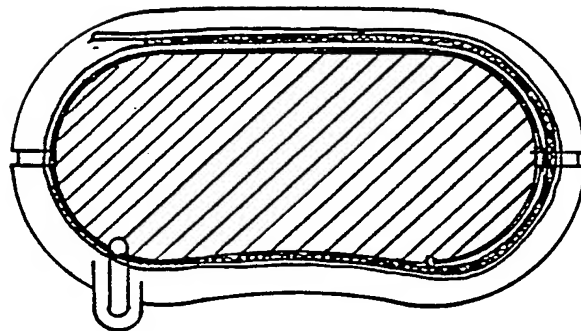


Fig. 5

(a)



(b)



2243677

- 1 -

MODIFIED TORCH.

This invention relates to a modified torch.

It is commonplace in domestic and like environments to use a handheld battery operated torch.

Torches, normally comprising of batteries, bulb, switch and reflector, housed within a case, are commonly handheld. In order to shed light over a given area, a lamp could be is used or the torch can be mechanically moved by the user . The torch is used to direct light onto an area, usually using one hand to hold the torch.

This is usually inconvenient as it makes working with both hands extremely difficult, i.e for unexpected repairs on the car for example.

A solution to overcome this, would be to use a miners hat, with the torch situated on the hat, however, these are specialised items and are not common household items.

The present invention aims to provide a torch that leaves both hands free to operate.

In one aspect, the invention consists of a conventional household torch, uniquely designed to attach to the users wrist or the like, by means of a strap or the like, in order to provide a mobile directional beam of light to the position and area to which the user is working, leaving both of the users hands free to operate.

While the invention as defined, relates to a torch in itself it also extends to a watch or bracelet or the like assembly incorporating a light source.

The specific embodiments of the invention will now be described by way of example with reference to the accompanying drawings in which:

Fig 1: The torch is shown with the strap stored round the body, (a) on its side, (b) standing on its base.

Fig 2: The torch is shown strapped to the wrist, (a) above the wrist, (b), below the wrist.

Fig 3: Orthographic views are given of the torch with the strap omitted.

Fig 4: The strap is shown opened out flat.

Fig 5: Two cross-sections are given with the strap (a) strapped round the wrist; (b) wound round the torch.

Referring to the drawings, the torch comprises the normal components, switch 1, batteries 2 (2x 1.5V R14 batteries are used), bulb 3, lens 4 and reflector 5.

These components are housed in a casing 6 which is constructed to allow access for battery replacement. the casing incorporates a raised head 7 which is made to swivel through an arc of approx. 90° to allow the beam to directed past the hand whilst in use, strapped to the wrist and in different directions. The swivelling head is constructed with a spring loaded indexing system allowing a choice of approx. 6 different positions. The head 7 is raised away from the battery casing to enable the light beam to bypass the users hand when the torch is strapped to the wrist. The casing also incorporates a slot 8 to receive the fixed end of the strap inside the casing; and a metal anchoring rod 9 is mounted slidably between two slotted extensions on the underside of the casing. Finally two ridges or ribs 10 pass circumferentially around the casing, retaining the strap between them. The underside of the torch casing is curved to provide comfortable location on the wrist.

The switch 1 is incorporated into the rib on the upper side of the torch casing, and is of the push-on push-off type.

The lens and reflector unit (4 and 5) is mounted slidably onto the casing, and is fitted with a spring-loaded stop system allowing 2 different positions. Position 1 with the lens unit pushed fully home allows a wide beam; position 2 with the lens unit withdrawn brings the bulb closer to the focal centre of the reflector and thus provides a narrower, more intense beam for detailed work.

The lens and reflector unit is a snap-fit, and can be pulled off for the replacement of the bulb.

The strap 11 is joined to the torch casing at one end. It is made of flexible material such as leather or PVC and incorporates a number of pieces of fastening material such as velcro (hook Velcro 12, loop Velcro 13, Loop Velcro 14)

When the strap is not required it is stored by winding it round the casing as shown in Fig 1 and in section in Fig 5 (b). The Fastening Velcro hooks 12 engage with the Velcro loops 14, and hold the strap in place. The metal anchoring rod 8 is pressed into its housing in the torch casing by the strap passing over it.

When it is required to strap the torch to the wrist, the strap is unfastened by pulling the Velcro apart; it is unwound from the torch and passed around the users wrist. The pointed end of the strap is passed behind the anchoring rod 8 (which slides in the slots away from the body of the torch) and back on itself. The strap is pulled tight and is fastened in this position by the fastener. See fig 5(a).

Removal of the strap is the reverse of the above procedure.

The man skilled in the art will realise that very many different modifications may be made within the broad scope of the invention, and that the example shown in the drawings is only one embodiment of many possible embodiments. For instance , the strap can be replaced by a spring loaded, plastic coated, metal hook that would clip onto the wrist. Another possible alternative would be a elasticated webbing, that the wrist would be passed through.

The man skilled in the art will appreciate that the concept of the mobile directional beam can, per se, be developed in the future to incorporate the technology to automatically position the beam where required by means of laser beams or the like for example. It is believed , however, that in view of the costs associated with household torches, the design shown is preferable.

CLAIMS.

1. An electric torch comprising a wrist strap or band, a holder for the battery or batteries, lens, reflector and bulb, which may be attached to the users wrist by means of the strap, to direct light to the position required, giving a mobile directional beam to the user leaving the hands free to operate.
2. An electric torch as claimed in (1) wherein the strap may be housed for storage by winding it around the casing of the torch into a recess, being fastened in position by means of a fastener, in this case Velcro being the fastener material used.
3. An electric torch as claimed in claim 1 wherein the strap fitting on the wrist is adjustable and the strap is tightened on the wrist by means of passing the strap around an anchor rod attached to the torch body and back on itself, being fastened in position by means of Velcro.
4. An electric Torch as claimed in claim 1 incorporating a raised head to allow the light beam to bypass the user's hand when the torch is strapped to the wrist.
5. An electric torch as claimed in claim 1 incorporating a swivelling head allowing approx. 6 different positions through an arc of approx. 90°.

6. An electric torch as claimed in claim 1 incorporating a two position lens/reflector unit allowing a wide beam or a narrow beam.

7. An electric torch as claimed in claim 1 incorporating a switch integral in a retaining rib moulded in a torch casing.

8. An electric torch substantially as described herein with reference to Figs 1-5 of the accompanying drawings.

9. A lamp or watch or bracelet, assembly incorporating an electric torch as claimed in any one preceding claim.